

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-16 (previously canceled)

17. (withdrawn) A method for fabricating an integrated electronic device having an electric connection connecting a first electrode of a first substrate with a second electrode of a second substrate, surfaces of the first and second electrodes having repellant and adhesive tendencies to molten metal, respectively, the method comprising the steps of:

forming a first soldering metal bump on the surface of the first electrode, the first soldering metal bump including at least one of components of an eutectic alloy having an eutectic temperature, wherein the first soldering metal bump has a first melting temperature;

forming a second soldering metal bump on the surface of the second electrode, the second soldering metal bump including the rest of the components of the eutectic alloy, wherein the second soldering metal bump has a second melting temperature;

aligning the first and second soldering metal bumps to each other, and then keeping both

in contact with each other; and

heating the first and second soldering metal bumps at such a connection temperature that a connection part made of the eutectic alloy is formed between the first and second soldering metal bumps,

wherein the connection temperature is higher than the eutectic temperature and lower than the melting temperatures of the first and second soldering metal bumps.

18. (withdrawn) A method for fabricating an integrated electronic device according to claim 17, wherein the eutectic temperature of the eutectic alloy is higher than a highest limit of an operating temperature of the integrated electronic device.

19. (withdrawn) A method for fabricating an integrated electronic device according to claim 17, wherein one of the first and second soldering metal bumps is made of at least a component of a binary alloy of In-Bi, a tertiary alloy of Sn-Bi-In or a four-element alloy of Sn-Pb-Bi-In, and the other of the first and second soldering metal bumps is made of the rest of the components of the binary alloy, the tertiary alloy or the four element alloy.

20. (withdrawn) A method for fabricating an integrated electronic device according to claim 17, wherein one of the first and second soldering metal bumps is made of at least a component of a binary alloy of Cd-Bi, a tertiary alloy of Sn-Bi-Cd or a four element alloy of Sn-Pb-Bi-Cd, and the other of the first and second soldering metal bumps is made of the rest of

the components of the binary alloy, the tertiary alloy or the four element alloy.

21. (withdrawn) A method for fabricating an integrated electronic device according to claim 17, wherein the electric connection is composed of Ge as an additional minor component.

Claims 22-24 (canceled)

25. (withdrawn) A method for fabricating an integrated electronic device according to claim 17, wherein the first substrate is a semiconductor chip and the second substrate is a circuit board.

26. (withdrawn) A method for fabricating an integrated electronic device according to claim 21, wherein the first substrate is a semiconductor chip and the second substrate is a circuit board.

Claims 27-36 (canceled)

37. (withdrawn) A method for fabricating an integrated electronic device having an electric connection connecting a first electrode of a first substrate with a second electrode of a second substrate, both surfaces of the first and second electrodes having an adhesive tendency to molten metal, the method comprising the steps of:

forming a soldering metal bump on the surface of the first electrode, the soldering metal bump essentially consisting of components of an eutectic alloy having an eutectic temperature, wherein the soldering metal bump has a melting temperature higher than the eutectic temperature;

mounting the first substrate on the second substrate such that the soldering metal bump is aligned to the corresponding second electrode; and

melting the soldering metal bump at the melting temperature, and then solidifying the soldering metal bump into the electric connection connecting the first electrode with the second electrode.

38. (withdrawn) A method for fabricating an integrated electronic device according to claim 37, wherein the eutectic temperature of the eutectic alloy is in the operating temperature range of the integrated electronic device.

39. (Currently Amended) A method for fabricating an integrated electronic device having an electric connection connecting a first electrode pad having repellency to molten metal on [of] a first substrate with a second electrode pad on [of] a second substrate, the method comprising the steps of:

forming a first [and second] soldering metal [bumps] bump on [the surfaces] a surface of the first electrode pad by deposition technique using a mask having an opening with the same pattern as the first electrode pad;

forming a second soldering metal bump on the second electrode pad [and second electrodes, respectively], wherein a melting temperature of the first soldering metal bump is higher than a melting temperature of the second soldering metal bump;

aligning the first and second soldering metal bumps to each other, and then keeping both in contact with each other; and

heating the first and second soldering metal bumps to melt the second soldering metal bump at a temperature lower than the melting temperature of the first soldering metal bump without melting the first soldering metal bump and then cooling down to solidify the second soldering metal bump to form an electric connection between the first and second electrode pads [electrodes, wherein the first electrode is connected indirectly with the second soldering metal bump by way of the first soldering metal bump, and the second electrode is connected indirectly with the first soldering metal bump by way of the second soldering metal bump during the heating and subsequent cooling-down processes].

40. (Previously Presented) A method for fabricating an integrated electronic device according to claim 39, wherein the surfaces of the first and second electrodes are made of Al and Cu, Au, Ag or Sn, respectively.

41. (Previously Presented) A method for fabricating an integrated electronic device according to claim 39, wherein the first and second soldering metal bumps essentially consist of an alloy of Pb and Sn, wherein Pb is contained less in the first soldering metal bump than in the second soldering metal bump.

42. (Currently Amended) The method for fabricating an integrated electronic device according to claim 39, wherein the first soldering metal bump is formed in a trapezoidal shape on the first electrode pad by depositing a first soldering metal through a first mask, and the trapezoidal shape is maintained after the electric connection is accomplished.

43. (Currently Amended) The method for fabricating an integrated electronic device according to claim 39, wherein [the surfaces of] the first and second [electrodes] electrode pads have repellant and adhesive tendencies to molten metal, respectively.